

## **EXTENDED ACKNOWLEDGEMENT AND RATE CONTROL CHANNEL**

### **ABSTRACT**

Embodiments disclosed herein address the need in the art for an extended acknowledgment/rate control channel. In one aspect, an acknowledgment command and a rate control command are combined to form a combined command. In another aspect, the combined command is generated in accordance with a constellation of points, each point corresponding to a pair consisting of a rate control command and an acknowledgment command. In yet another aspect, the points of the constellation are designed to provide the desired probability of error for the respective command pairs. In yet another aspect, a common rate control command is transmitted along with a combined or dedicated rate control command. Various other aspects are also presented. These aspects have the benefit of reduced overhead while providing acknowledgment and rate control to single remote stations and/or groups of remote stations.